

Second Residential and Agricultural Working Groups Meeting

North Fork and South Fork Roanoke Rivers Watershed Cleanup Plan

3 December 2015 6:00 p.m., Community Room at the Meadowbrook Center in Shawsville, VA

Our Task

Include all stakeholders in developing a plan to install Best Management Practices (BMPs) that will reduce levels of bacteria and sediment entering the Roanoke River watershed.

Primary Roles of Residential and Agricultural Working Groups

- Assist in determining types and extent of BMPs needed
- Assist in determining cost for each BMP
- Identify economic incentives/hardships with each BMP
- Identify technical and financial resources to carry out implementation plan
- Report findings to Steering Committee

Goals of Meeting

- Review estimates of implementation measures that will result in reductions in residential and agricultural bacteria and sediment loads. The proposed Best Management Practices (BMPs) by subwatershed presented are designed to meet water quality goals (sediment and bacteria reductions).
- Identify potential partnerships and funding sources for implementing clean up measures identified in the plan.

Discussion

RESIDENTIAL

- Need a new Residential Working Group representative to the Steering Committee
- Review of proposed BMPs:
 - Are the BMPs and costs reasonable for the watershed?
 - Street sweeping will be included, but we are awaiting additional information from the localities (Government Working Group): number of miles swept, frequency of street sweeping, and extent.

- Pet waste stations are proposed at the following locations:

Table 5. Proposed Pet Waste Station Locations		
Subwatershed	Location Type	Location
North Fork Roanoke River	Hotel	Super 8 Christiansburg
		Quality Inn Christiansburg
	Park	Wayside Park
South Fork Roanoke River	Hotel	Interstate Overnight RV Park
		Days Inn Christiansburg
	Neighborhood	Boggs Mountain Loop-Weeping Willow Ln
	Park	Eastern Montgomery Park
	School	Shawsville Elementary School
		Shawsville Middle School
		Elliston-Lafayette Elementary School
Wilson Creek	Apartment	Cascades Point Apartments
		The Mill at Blacksburg Apartments
		Cedarfield Apartments and Townhomes
	Hotel	Shayona Inn
		Econo Lodge
		Days Inn Blacksburg
		Comfort Inn Blacksburg
	Park	Mid-County Park - Parking lot
		Ellet Valley Recreational Area
		Cedar Hill Park
		Nellies Cave
		Sunrise Park
		Golden Hills Disc Golf Course at Mid-County Park
	Trail	Mid-County Park - nature trail loop system

- Pet waste composters will be incorporated into the plan as a strategy for bacteria reduction from pet waste:
 - Are there certain subwatersheds that are more likely to use them?
 - The number of pet waste composters can be estimated in a variety of ways. Examples:
 - Based on the assumption that half of the units would be used by households that contain one dog and half would be used in households that contain two dogs. Does this seem reasonable?

- Based on a certain percentage of households?
- An estimated total number of composters
- Are there any additional educational needs which should be addressed?
 - Homeowner/Developer targeted? Fliers included with utility bills?
- Are there educational/outreach needs for the watershed related to BMPs and water quality?
- Is there interest in an agricultural BMP workshop and/or a visit to see BMPs in place?
- Are there upcoming local community events where project information could be shared?
- What alternative funding sources are available?

AGRICULTURAL

- Need an Agricultural Working Group representative to the Steering Committee
- Livestock exclusion fencing map approach and maps; any comments?
- What alternative funding sources are available?
- Are the proposed BMPs reasonable?
- Are there educational/outreach needs for the watershed related to BMPs and water quality?
- Is there interest in an agricultural BMP workshop and/or a visit to see BMPs in place?
- Are there upcoming local community events where project information could be shared?

Background Information: Total Maximum Daily Load (TMDL) Study Results

Segments on the Roanoke River and its tributaries do not meet water quality standards (WQS) for bacteria. These standards are designed to identify waters that are not suitable for “primary contact recreation” (swimming) because of the risk of illness. The TMDL study identified the sources of bacteria and how much each source category needs to be reduced to restore water quality. A watershed approach was followed during allocation in determining the needed reductions in bacteria loads to streams in order to meet the water quality standards. In the watershed approach, the same percentage reduction is applied throughout the entire watershed and the resulting improvement in simulated water quality conditions is assessed at all impaired subwatershed outlets. Additional reductions to sources are modeled until simulated water quality conditions meet the standard at all impaired subwatersheds. The subwatershed map is shown in the "Maps" section at the end of the document. The area of interest in this Clean-up Plan is the entire drainage area of the North and South Fork Roanoke Rivers including tributary drainages. The Clean-up Plan will outline a staged approach to meet the reductions to human, pet, and agricultural sources determined in the TMDL study. Wildlife is considered a background condition and reductions to wildlife bacteria loads are not explicitly addressed in the TMDL implementation plan.

In addition, segments of the Roanoke River were found to have excessive sediment which clogs available habitat for aquatic life and indicates chronic water quality problems. Sediment sources within the Roanoke River watershed include both point and non-point sources. Point sources include solids from permitted discharge facilities and land-based loading from areas covered by municipal separate storm sewer system (MS4) permits. Non-point sources include sediment derived from the erosion of lands present throughout the watershed and the erosion of stream banks within the Roanoke River watershed (including tributaries).

The following list contains the "impaired" stream segments, their lengths and locations, and the reasons for impairment: “impaired” stream, the length of the impaired segment, location and the reason for the impairment: North Fork Roanoke River, 16.09 miles, bacteria; Wilson Creek and Unnamed Tributary to Wilson Creek, 6.99 miles, bacteria; Bradshaw Creek, 10.36, bacteria; South Fork Roanoke River, 17.31 miles, bacteria; and Goose Creek, 2.30 miles, bacteria. These stream segments are located in Montgomery County, Roanoke County and/or Floyd County.

TMDL studies are EPA and Virginia Soil and Water Conservation Board approved and may be viewed on DEQ’s website:

<http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLDevelopment/ApprovedTMDLReports.aspx>

*TMDL Studies establish the goals for sediment and bacteria reduction.
The Clean-up Plan is the “road map” to meet those water quality goals!*

Project Area Map (Parts I and II). Part II includes the North Fork and South Fork Roanoke Rivers (and subwatersheds).

